

REMARKS

Claims 25-32 and 34-50 are presently pending in this application. In the Office Action of April 13, 2007, claims 25-28, 30, 31, 32, 34-37, 39, 41-44, 47, 49, and 50 were rejected under 35 U.S.C. 102(e) as anticipated by Hsu et al. (USPN 6,555,467). Claims 42 and 45 were rejected under 35 U.S.C. 102(e) as anticipated by Grill et al. (USPN 6,413,852). Although the Office Action Summary states that claims 29, 38, 40, 46, and 48 are rejected, the Detailed Action section does not provide the basis for rejecting those claims.

In this Reply, claims 25 and 42 have been amended. No new matter has been added by way of these amendments. Reconsideration and allowance of the claims in light of the amendments and arguments presented herein are respectfully requested.

Claim 25

Claim 25 has been amended to more clearly distinguish it from Hsu. Amended claim 25 provides:

A semiconductor layer arrangement, comprising:
a substrate;
a layer being arranged on the substrate, the layer including a first subregion and a second subregion arranged proximate to the first subregion, the first subregion being a decomposable material and the second subregion having a structure of non-decomposable material;
a covering layer positioned on the layer including the first subregion and second subregion; and
an electrically conductive passivation layer positioned between *adjacent surfaces* of the non-decomposable material and the covering layer;
wherein the decomposable material is diffusible through the covering layer *and the covering layer closes the first subregion off to all area outside the semiconductor layer arrangement.* (italics added)

The amended claimed features are supported by the specification. For example, support for “an electrically conductive passivation layer positioned between adjacent surfaces of the non-decomposable material and the covering layer” is disclosed in paragraph 0060 and support for “the covering layer closes the first subregion off to all area outside the semiconductor layer arrangement” is in paragraph 0050 and the related drawings.

Amended claim 25 recites that the electrically conductive passivation layer is positioned between adjacent surfaces of the non-decomposable material and the covering layer. Hsu et al. does not disclose such an arrangement. As can be seen in FIG. 11 of Hsu et al., the conductive passivation layers (40, 70) are not positioned between *adjacent* surfaces of the non-decomposable material and the covering layer. Hsu et al. does not provide a teaching or motivation for modifying the disclosed arrangement so that the conductive passivation layers (40, 70) are positioned between adjacent surfaces of the non-decomposable material and the covering layer.

Thus, claim 25 is believed allowable. Claims 26-32 and 34-41 depend on claim 25 and are believed allowable for at least the same reasons.

Claim 42

Amended claim 42 provides:

A process for forming a layer arrangement, comprising:

forming a layer on a substrate, the layer including a first subregion and a second subregion arranged proximate to the first subregion, the first subregion having decomposable material and the second subregion having a structure of a non-decomposable material;

forming a covering layer on the layer including the first subregion and second subregion; and

forming an electrically conductive passivation layer at least between adjacent surfaces of the useful structure and the covering layer;

wherein the decomposable material is removable from the layer arrangement by diffusing through the covering layer *resulting in a layer arrangement in which the first subregion is closed off to all area outside the layer arrangement.* (italics added)

Support for the amended features of claim 42 is shown at least in Figs. 1A to 1H and described in the corresponding description.

Previous Rejection

Applicants respectfully traverse the rejection to the previous version of claim 42. The basis for the traversal supports the patentability of amended claim 42.

In rejecting the previous version of claim 42, the Office Action cites to both the description of the embodiments of the Grill et al. invention and the prior art discussed in the background section of Grill et al., and combines them as a basis for the rejection. We

respectfully contend that such a combination is not proper under 35 U.S.C. § 102. In discussing 35 U.S.C. 102 rejections, MPEP § 2131 states that “the *identical invention* must be shown in as *complete detail* as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Anticipation requires the same or identical invention in as complete detail as is contained in the claim. MPEP § 2131.01 states that normally only one reference should be used in a 35 U.S.C. 102 rejection. There are only three exceptions: (A) to prove that the primary reference contains an enabled disclosure; (B) to explain the meaning of a term; or (C) to show that a non-disclosed characteristic is inherent. None of these exceptions apply for this rejection. Specifically, the Office Action cites the background section of Grill et al., at col. 2, line 23 et seq. which states that a decomposable byproduct diffuses through a bridge layer. However, the method discussed in the background section is not related to the method disclosed by Grill et al. In the Grill et al. method, the bridge layer contains holes or perforations. Combining the background section of Grill et al. and the Grill et al. embodiments does not fall into one of the exception categories.

Applicants respectfully request that the 35 U.S.C. 102(e) rejection citing the Grill et al. embodiment and the method discussed in the background section be withdrawn and, moreover, not asserted as a basis for rejecting amended claim 42.

Claim 42 as Amended

Amended claim 42 recites that “the decomposable material is removable from the layer arrangement by diffusing through the covering layer resulting in a layer arrangement in which the first subregion is closed off to all area outside the layer arrangement.” Grill et al. does not disclose a first subregion that is mechanically closed off to the outside area by a covering layer. Grill et al. requires that holes or perforations in the bridge layer be sealed with an additional layer (col. 8, lines 40-43) or pinched-off by means of an additional dielectric deposition step (col. 3, lines 44-45). Because the bridge layer has holes or perforations, it does not close the first subregion off. Also, Grill et al. teaches away from the “drawbacks mentioned [] with prior art processes” discussed

in the background section, which includes diffusion. Therefore, claim 42 is not obvious in view of Grill et al.

Applicants note that Grill et al. states at col. 7, lines 28-30 that “[i]f dielectric bridge layer 250 is sufficiently porous, lithographically defined holes or perforations might not be required, as will be discussed later.” Grill et al. states at col. 8, lines 40-43 that [i]n FIG. 3B, bridge layer 250 with lithographically defined perforations is replaced by a porous bridge layer 300. After SPH extraction, the bridge 300 layer may easily be sealed with an additional layer (not shown).” However, Grill et al. does not enable an embodiment that includes a dielectric bridge layer being sufficiently porous as not to require holes or perforations. All the embodiments shown and sufficiently described in Grill et al. have either holes or perforations. The specification of Grill et al. fails to teach how to make and use a sufficiently porous bridge layer that does not require holes or perforations without undue experimentation, and therefore is believed not enabling regarding a sufficiently porous bridge layer not requiring holes or perforations. A patent claim “cannot be anticipated by a prior art reference if the allegedly anticipatory disclosures cited as prior art are not enabled.” *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054 (Fed. Cir. 2003).


For at least the reasons discussed above, it is believed that Grill et al. fails to teach or suggest all the features of claim 42. Thus, claim 42 is believed allowable. Claims 43-50 depend on claim 42 and are believed allowable for at least the same reasons.

Conclusion

Therefore, in view of the above remarks, we respectfully submit that this application is in condition for allowance and such action is earnestly requested.

If for any reason the Examiner is not able to allow the application, she is requested to contact the Applicants' undersigned attorney at (312) 321-4200.

Respectfully submitted,



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